

CREATING AND USING BUTTONS

Using Three-Dimensional Effects

In this chapter, you will:

- ◆ Design buttons
- ◆ Work with text in Web graphics
- ◆ Create shapes and paths
- ◆ Create 3-D effects
- ◆ Implement buttons in Web pages

Unlike other icons, buttons add functionality to Web pages. Imagine a Web page in terms of an electronic device: Web icons are like stickers on the device, such as those identifying the manufacturer, or those that warn against using the product near water. Web buttons are like physical buttons, such as the on/off switch. Standard icons provide some information to the user, but a button also must encourage an action, such as following a link or submitting a form.

You must design buttons that encourage clicking. The most clickable buttons imitate the qualities, such as size and shape, of buttons on physical appliances. Buttons also should appear to be three-dimensional (3-D). You achieve this effect by adding highlights, texture, and shadows, and by rounding the edges of the buttons.

The purpose of a button is often more difficult to express symbolically than the purpose of an icon. When symbols are unclear, use text to inform users about button functions. This chapter covers the design, creation, and use of 3-D buttons.

DESIGNING BUTTONS

When designing a button, use a style that matches its importance. Emphasize buttons that perform important functions, and de-emphasize others. The best way to de-emphasize a button is to not use a graphic with it, and leave it as a simple text link. The best way to emphasize a button is to imitate those on actual appliances by rounding corners and simulating 3-D effects.

Understanding Different Types of Buttons

All buttons prompt the user to perform an action. Usually the action is to follow a hyperlink to another page, but a button click also can close a window, submit a form, or send a message. You can separate buttons into several thematic categories, including site content, site information, and account information. Buttons that are part of the same theme should look similar and must be easily distinguished from buttons with different themes. For example, imagine a page with the following links: Sign up for FREE E-Mail, E-MAIL US, and E-Mail this Page to a Friend. You can represent each link with an image of an envelope, as shown in Figure 7-1, but that makes the relative meanings unclear. Although additional text in the buttons would explain their functions, the envelope icon is ambiguous and is what makes the additional text necessary.



Figure 7-1 Similar, ambiguous buttons

Meaningful symbols for these buttons would exploit the differences among them, as shown in Figure 7-2. Instead of using the image of an envelope for each button, focus on the unique tasks of each function. The first button could use a graphic of a pencil filling in a form to suggest the concept of signing up, and the third button could use an image of a face to suggest the idea of a friend.

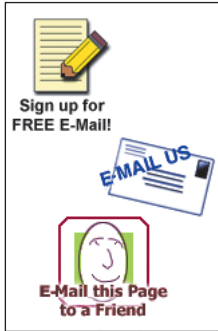


Figure 7-2 Unique, unambiguous buttons

Imagine also that the page contained these additional links: Edit Your Account and Print this Page. You could group all five buttons by theme, using similar designs, as shown in Figure 7-3. The FREE E-Mail and Edit links both relate to a user account and should share a design. Similarly, the E-Mail to a Friend and Print links both relate to manipulating the page content, and also should share a design.



Figure 7-3 Buttons with shared themes and designs

Some examples of different types of links are:

- *Site Information:* Links that lead the user to information about the site, such as advertising, event calendars, contacts, and privacy policies
- *Navigation:* Links that lead the user to the content of the site, such as auctions, chat rooms, downloads, news, reviews, and tutorials
- *Account:* Links relating to the user's account on the site, such as editing account information, registration, making the page a home page, and personalizing the site
- *Page Content:* Links that reformat the page or lead to another version of the same page, such as Mail this Page to a Friend, Print this Article, Bookmark this Page, and Save this Page

- *Directional*: Links that lead to pages related to the current page, such as Home, Next, Previous, and Top
- *Media Player*: Links that control audio or video players in the page, such as Listen, Play, Stop, Reverse, and Fast Forward
- *Functional*: Links that manipulate the browser window, such as E-MAIL US, Fit Browser to Screen, and Close this Window

Figure 7-4 shows a conventional Web page layout, often called a C-clamp because the navigation and advertisements form the shape of the letter C around the actual content in the center of the page. The figure has a black line representing the page fold. In a newspaper, the fold is in the center of the paper, where it is folded in half. Important news is placed above the fold so that it is seen even when the newspaper is folded. In a Web page, the fold is at the bottom of the browser window, where the bottom of the page is cut off and the user must scroll to see more. The position of the fold is different for every size of monitor, but typically it is about 800 pixels from the top of the page.

Important information, such as the logo and navigation symbols, must be positioned above the fold, so that users see it without having to scroll. Important information is more likely to be represented by graphical buttons instead of text links. Less crucial information, such as links within content, or obligatory links such as copyright information, tends to be placed below the fold and probably is represented as text links rather than as graphical buttons.

Links surrounding the text (the C part of a C-clamp layout) probably are represented as graphical buttons, while the links in the text (the material enclosed by the C) probably are left as text links. This design is very conventional. The challenge for all Web designers is to discover ways of laying out pages that are as clear and navigable as the C-clamp design, but are also innovative and interesting.

As shown in Figure 7-4, links along the top and left of a page usually are buttons, while links within the content itself and site information links at the bottom normally are text links.

There are no conventions about how different types of buttons should look, as long as they stay consistent within their types.

Imitating Physical Buttons

Users must be able to immediately distinguish between static icons that merely provide information and dynamic buttons that perform an action. When Web page text is blue and underlined, you immediately know that it is a link. Users should have the same reaction to the buttons you design—they should know that buttons are links and that icons are for information only.

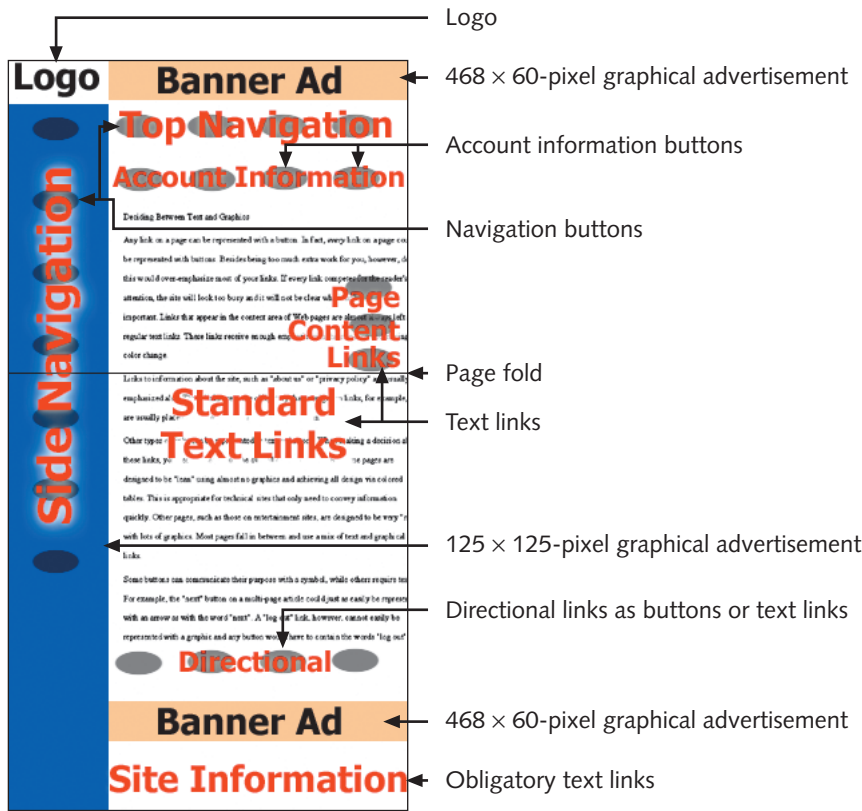


Figure 7-4 Positioning of different types of buttons in a conventional page layout

If it is ambiguous whether a graphic is a standard icon or a button, users waste time clicking icons that lead nowhere, or they hunt for a button that is in plain sight but does not appear to be clickable. You need to use a convention such as the blue underline to cue the reader that a button is a link. The most common convention to make buttons look clickable is to simulate 3-D effects on the buttons. Figure 7-5 shows two buttons that prompt the user to submit a form. The button on the left is flat, and a user may not understand that it should be clicked. The button on the right uses several 3-D cues so the reader knows the image is a button, and that clicking it causes an action.

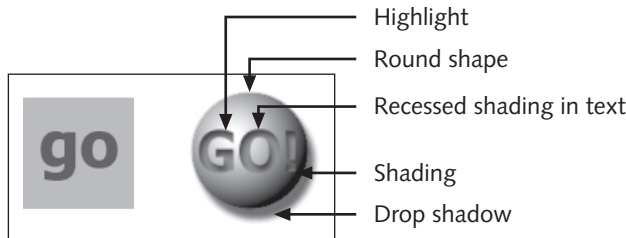


Figure 7-5 A flat button and a 3-D button

In the case of buttons, three-dimensionality is a cue both on the Web and in everyday life. This is especially true for media player software buttons, whose actual functions mimic those on devices such as CD players. Make the Play button in a Web-based music application resemble the Play button on an actual CD player, as in Figure 7-6, and the reader knows immediately what the button does.



Figure 7-6 Media buttons

Designing a Tabbed Interface

A common problem for site architects is fitting all of a site's links in one navigation bar. The simplest solution is to put them together in a list, as in Figure 7-7. To do so, you place the navigation bar on the side, because the top of the page cannot accommodate more than five or six buttons, and most sites have dozens of links in the navigation area. However, a side navigation bar overwhelms the reader with choices, and many links get lost below the fold and are not visible until the reader scrolls down.

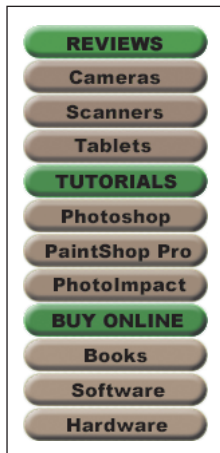


Figure 7-7 Side navigation bar

If you use a **hierarchical**, or nested, menu in the navigation bar, as shown in Figure 7-8, you avoid presenting too many choices. The menu in Figure 7-8 includes only four or five categories, which expand into more topics when you select a category. The drawback to this approach is that it usually requires lots of extra HTML or special coding in Java or JavaScript.



Figure 7-8 Hierarchical menu on the side

In a **tabbed interface**, as the user clicks each tab, submenu links appear below the tab, as shown in Figure 7-9. The tabbed interface is a relatively new convention for site navigation, but it is already used on most major Web sites. It allows designers to move navigation bars from the left side of the page to the top, and frees up more page width for content. You also can create a tabbed interface entirely with HTML, without additional client-side programming. The tabbed interface also is a type of hierarchical menu system.



Figure 7-9 Hierarchical menu on the top

Each tab serves as a button, and often does not use 3-D effects, because its purpose is clear without the additional cues. The design of the navigation tabs is simple; rounded corners reinforce the association with actual file folders.

Tabbed interfaces require at least two versions for each tab: one for the tab when it links to the current page, and one when it links to another page. Incidentally, using two versions also is popular for buttons on side navigation bars. All buttons appear in their default state, but when you click a button, a new page appears with the button in a different state.

To emphasize the selected tab, draw it to create the illusion that it overlaps the adjacent tabs, as shown in Figure 7-10. Use a brighter color than the other tabs to reinforce the impression that the tab is in the foreground.

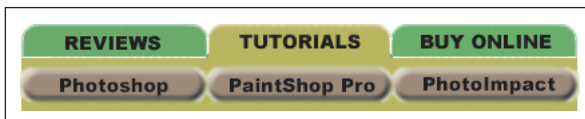


Figure 7-10 Tabbed interface

Rollover Effects

Readers need cues to know that clicking a button causes an action. In addition to 3-D shading, rounded corners, and simple text instructions, many designers use **rollover effects**, which call attention to a button and signify it as a link. Your Data Disk includes an example of a button with rollover effects.

To view a button with rollover effects:

1. In a Web browser, open the file named **rollover.html**.
2. Move the pointer over the **image** to see one type of rollover effect.
3. Click the **image** to see another type of rollover effect.

Although often overused as a design element, rollovers can add interest to a page and make it feel more interactive. You can create rollover effects with JavaScript or style sheets, and most WYSIWYG HTML editors generate the code for you. This book dedicates an entire chapter to rollover effects.

Deciding Between Text and Graphics for Buttons

You can use a button to represent any link on a page. In fact, you could use buttons to represent *every* link on a page, but it would be time-consuming and ineffective because most of your links would be overemphasized. If every link competes for the reader's attention, the site looks too busy, and it's unclear which links are most important. Links that appear in the content area of Web pages almost always are left as regular text links. These links receive enough emphasis with standard underlining and color differences.

Good candidates for text links are links to obligatory information and links that cannot be represented by graphics. Links to information about the site, such as About Us or Privacy Policy, usually are de-emphasized. These links connect to information the site must provide, and usually appear at the bottom of pages as simple text links. Some concepts, such as logging off a network, are difficult to represent with a graphic, and therefore need text to make their purpose clear. If a link requires text for clarity, you save bandwidth by not using a button.

You can represent other types of links as either text or buttons. For example, you could represent the Next button on a multipage article with an arrow or with the word Next. Before you make decisions about these links, you must determine the overall page design. You will design some pages to be lean, and use colored tables coded in HTML instead of graphics. A lean design is appropriate for technical sites that simply convey information quickly. You will design other pages, such as those on entertainment sites, to be very rich, with lots of graphics. Most pages fall between these two extremes and use a mix of text and graphical links.

You can display text in Web pages only with fonts that are installed on the user's computer. When using fonts in a graphic, however, you can select from the fonts on your

own computer. If you want to use a nonstandard font in a Web page, placing text in graphics is sometimes the only way to guarantee that your chosen font will appear.

Graphical buttons with clear, well-designed images provide meaning and create visual interest on a Web page. They also work well with international audiences. Most users correctly interpret a button with an arrow to be a link to the next page. However, they might not be able to interpret the words “Next Page” in a text link. Links that need emphasis also can attract more attention if you represent them as buttons. In general, use buttons as links when it suits the overall design of the site, to add visual interest and emphasis, and to provide universal meaning.

WORKING WITH TEXT

Most buttons use text to describe their function. You add text to graphics in Photoshop with the Type tool. In older versions of Photoshop you add the text in a separate window, but in newer versions you type directly over the image.

In Photoshop, click an image with the Type tool to open a new layer that appears in the Layers palette. A “T” appears in the Layer thumbnail area, as shown in Figure 7-11, and indicates that it is a type layer. A **type layer** contains active, unrendered text. You must **render**, or rasterize, the type layer before you can apply filters or other effects. Once you render the type layer, you can no longer edit the text. Until the type is rasterized, the text is treated as vector information, so you can modify it. You can add text to an image, and then apply different settings to the text to see how it looks with the rest of the image.

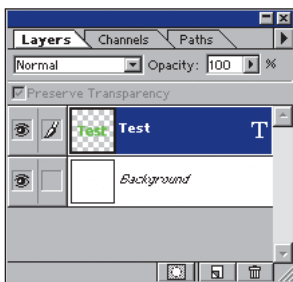


Figure 7-11 A type layer

To add text to an image:

1. In Photoshop, create an **image**.
2. Click the **Type** tool and set the options in the Options bar to **Create a text layer**. Set the foreground color to **black**.
3. Click the **image** and type the text you want, such as **Next Page**.

4. Click the **text** and change the **font**, **size**, and **color**.
5. When you finish editing, click **Layer** in the menu bar, click **Rasterize**, and then click **Type**.

The Options bar when the Type tool is selected is shown in Figure 7-12.

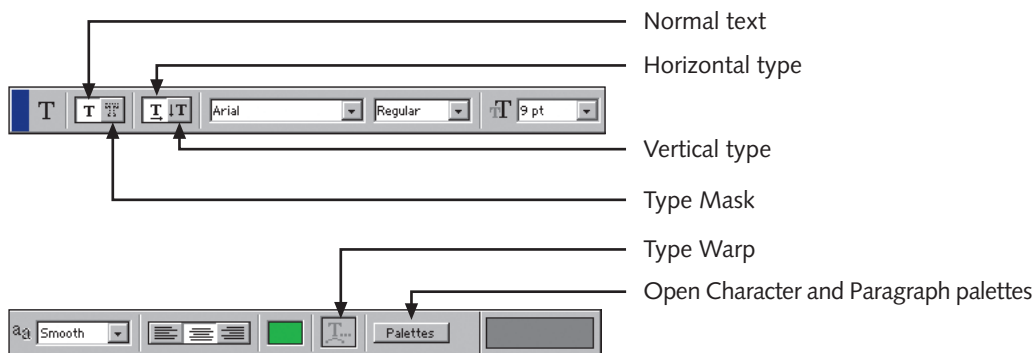


Figure 7-12 Type tool options

Setting Type Options

The type options in Photoshop are similar to those in any word-processing program. Photoshop 6 includes separate Character and Paragraph palettes, shown in Figure 7-13, to adjust kerning, leading, and other text settings. Most text options apply only to several lines of text, such as a paragraph. Most Web graphics use only individual words or phrases.

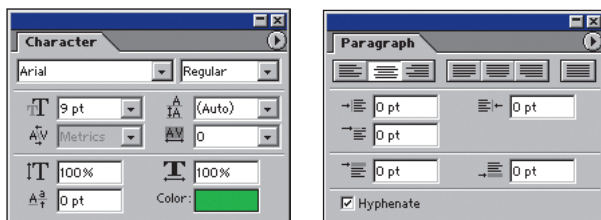


Figure 7-13 Character and Paragraph palettes

Some options in the Character palette are useful when you design buttons. **Kerning** and **tracking** refer to the distance between characters. Use these options to squeeze text into a small space or stretch it to fit a larger space. Similarly, **leading** controls the spacing between lines of text. You can adjust leading to fit multiple lines of text in a given space, although few buttons have more than one line of text. Examples of leading and tracking are shown in Figure 7-14.

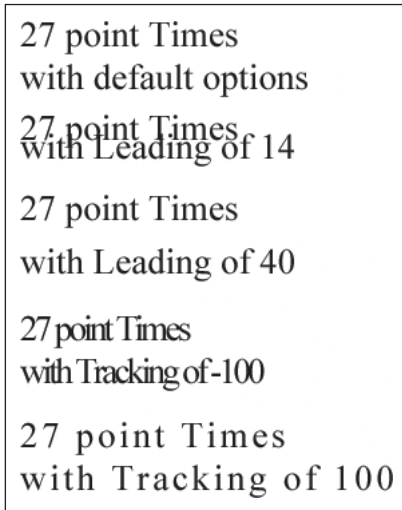


Figure 7-14 Type leading and tracking

You can set most fonts to regular, bold, italic (oblique), or bold italic. The following “Selecting a Font” section provides more information about text fonts on buttons.

The **Anti-Alias** option allows you to control the smoothness of the text. Selecting None gives the text a jagged edge, which can be useful if you are using transparency. Because the text in buttons almost always appears on a nontransparent background, you should use another anti-aliasing option, such as the Smooth option, which produces the best results.

Selecting a Font

Buttons usually are only as large as necessary. Therefore, you need to make button text as small as possible, yet still keep it legible. To do so, you choose between serif and sans serif fonts, select text attributes, and set the type size. **Serifs** are short lines or small additions to the ends of letters. Serifs help differentiate letters and font types. **Sans serif** fonts do not include serifs in their letters (*Sans* is French for without.) Some serif fonts are New York and Times Roman; some sans serif fonts are Arial and Helvetica. Serif and sans serif fonts are illustrated in Figure 7-15.

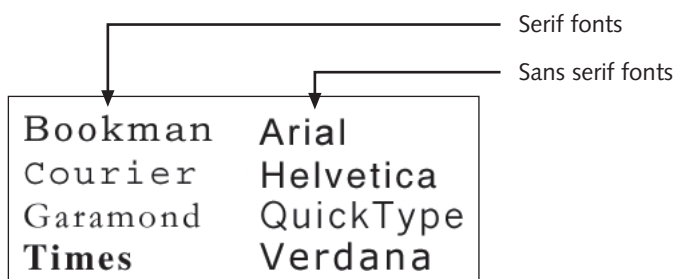


Figure 7-15 Examples of serif and sans serif fonts

To understand how serifs are useful, look at the words in Figure 7-16. Without serifs, the letters *cl* appear to be a *d* when the tracking is reduced. In the serif font the letters are easier to distinguish and the word is clearly legible.



Figure 7-16 Differences between serif and sans serif fonts with reduced tracking

Serifs work well in print, where the resolution of ink molecules on paper is effectively millions of dots per inch. On computer screens, however, the resolution is too low to make serifs enhance the readability of text. In fact serif text on a computer screen is often less readable than sans serif text. Therefore, most Web pages use fonts such as Arial and Helvetica for body text and other small text; for variety they use fonts such as Times for headlines and other large text. Most print media, in contrast, use sans serif type for headlines and serif type for body text.

Just as serif text is more difficult to read on computer screens, so is italicized text, especially at small sizes. See Figure 7-17 for an example. Buttons normally use small text, so select a font that is easy to read, nonitalic, and sans serif. Use italics only in buttons with larger text. The most legible text is lowercase with the first letter of each word capitalized. Avoid all-uppercase or all-lowercase words.

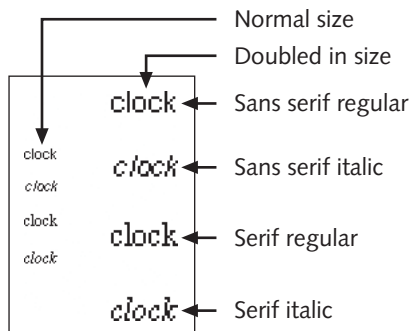


Figure 7-17 Serif and sans serif fonts as they appear on a computer screen

Bold formatting increases the width of letters, so you may want to reduce the kerning on boldface text to keep the overall width within an acceptable range. A new sans serif font, Verdana, was developed for the Web, and is especially easy to read because its letters are wider than those in Arial and Helvetica. However, using Verdana may require wider buttons than you want, or you might have to reduce the font size to fit the text in the button. In general, avoid using Verdana for buttons, or reduce kerning to help fit

the text. Figure 7-18 shows four lines of text; although all have the same point size, they have quite different widths.



Figure 7-18 Varying widths of sans serif fonts

Setting the Type Size

By default, type size is measured in points. You must adjust Preferences to use pixels as the type size unit in Photoshop.

To set type size units in Photoshop:

1. Click **Edit** in the menu bar, point to **Preferences**, and then click **Units & Rulers**.

The Units & Rulers Preferences dialog box opens.

2. Select **pixels** (or **millimeters**) for the type units.

Warping the Text

Another new feature in Photoshop 6 is the ability to warp text. Warped text is effective for use as distorted text. Text can be warped only before it has been rendered.

To warp text in Photoshop:

1. Create an **image** and add text using the Type tool. Select the **text**.
2. Click the **Create Warped Text** button in the Options bar, and select a style and direction.
3. Modify the effect with the other three slider bars.
4. Click **OK** to see the warped text.
5. Select the **text** with the Type tool and warp it again with a different setting. Text can be warped using only one setting.

Even after the text is distorted, you still can edit it. The warping feature works better in logos and larger types of Web graphics than in buttons. Buttons usually do not have room for distorted text, so use this option sparingly.

Using the Type Mask Tool

The left part of the Options bar includes buttons that set the Type tool to create either a text layer or a type mask. The **Type Mask** tool creates a selection area in the shape of text, rather than normal, colored text. This tool is used to create visual effects with the text outline when the background has a color or texture. For example, you can boost or reduce the contrast or run a filter, and make the changes occur only within the type mask.

Unlike regular type, you do not have to render the type mask before applying filters or other effects. The word “mask” is used often in Photoshop, and refers to the area outside a selection. A mask lets you protect areas where you apply effects such as filters. The area you do not select is masked, or protected from editing.

Photoshop also includes the Vertical Type tools, which work like the other type tools, except that the resulting text runs from the top to the bottom of the page or area, instead of from left to right.

To create a selection using the Type Mask tool:

1. Create a new **image**. Select the **Type** tool and click the **Create a mask or selection** button in the Options bar.
2. Click the **Vertically orient text** button to have the text read down rather than across.
3. Click the **image** and type the text you want. The image temporarily changes color as you add text.
4. When you finish, click the **Commit any current edits** (check mark) button in the Options bar to commit the edits, or select another tool from the toolbox. You should see a selection area in the shape of the text you added. You cannot edit this as you would normal text.
5. Select the **Paintbrush** tool and set the brush to one of the spatter brush heads. Use **black** as the foreground color and daub the pointer on each letter.
6. Deselect the selection area to see your text.

CREATING SHAPES AND PATHS

Traditionally, graphics software worked exclusively with either bitmap images or vector images, but not both. Recently, however, these programs are converging. Photoshop 6 and other new image-editing tools now include vector tools in addition to their bitmap tools. You no longer have to use programs such as Adobe Illustrator or FreeHand to create vector images; you can now do so directly in Photoshop.

The vector tools in Photoshop work with paths, which are vectors with a different name. **Paths** are made up of anchor points connected by straight or curved lines. Paths are used only to guide you in creating shapes and selection areas; they are not part of the finished

image. When a path forms a complete loop, it is called a **shape**. Shapes are similar to selection areas, but are easier to edit and give you more precise control. Unlike selections, you can save paths and shapes with an image in most common formats, including GIF and JPEG. The path information can be understood even by some vector-based graphics software such as Adobe Illustrator.

Creating Shapes

To simulate physical-world buttons, you often want to create round buttons or rectangular buttons with rounded corners. Older versions of Photoshop had tools to create ellipses and rectangles, but did not let you directly create polygonal shapes or rectangles with rounded corners. To make complex shapes, you had to combine elliptical and rectangular selection areas. Photoshop 6 now includes separate tools to create these shapes. If you use an older version of Photoshop or another image editor, you need to use a different method to create rounded corners.

The most recent version of Photoshop includes a new tool called the Shape tool. This tool makes shapes much easier to create than they were in previous versions of Photoshop. You can create rectangles, circles, rounded rectangles, and polygons, as well as more complicated shapes. Just as you preview layers in the Layers palette and view the different channels and masks in the Channels palette, you can view paths and shapes in the Paths palette. Keep this palette open as you create and edit shapes and other paths. Figure 7-19 shows the Paths palette.

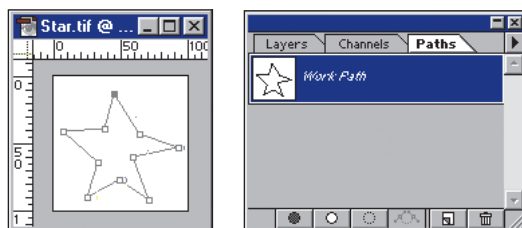


Figure 7-19 The Paths palette

When creating a path, you can choose whether to create a clipping path or a work path. A **work path** is a temporary path in an existing layer, and is discarded after use. A **clipping path** is created in a new layer of its own and is more appropriate for creating buttons. When you click the Create a New Shape Layer button in the Options bar, a Layer Style menu appears with many preset layer styles. This option lets you create clipping paths with several options for buttons.

Creating Squares and Circles

The Rectangle and Ellipse shape tools work like the Rectangular and Elliptical Marquee tools. Use the Marquee tools to create a rectangular or elliptical selection area around pixels.

Use the Shape tools to create a rectangular or elliptical path over the image. You convert the path to a selection by clicking the Loads path as a selection button at the bottom of the Paths palette. You also can convert a selection to a path by clicking the Makes work path from a Selection button. Combining shapes is the same as combining selection areas—each additional shape adds, subtracts, or intersects with the existing shapes, depending on which option you select from the Options bar. Unlike selections, you also can combine shapes to exclude only the intersection of the new and existing shapes.

While Marquee tools require using the Shift, Control, and Option (or Alt in Windows) keys to control parameters such as aspect ratio, you control Shape tool settings with menu selections in the Options bar. There you can force specific sizes or ratios, and determine whether to draw the shape from the center or from the upper-left corner.

Creating Rounded Rectangles

Photoshop 6 offers graphic artists an easy way to create rounded rectangles. Unlike the Rectangle tool, the Rounded Rectangle tool has a Radius option. This value indicates the amount of curvature in each corner of the shape. Think of a rounded rectangle as having four circles that define each corner of a rectangle. The radius of the curve in each corner is the same as the radius of each circle.

To create a rectangle with round corners in Photoshop:

1. Create an **image**.
2. Select the **Rounded Rectangle** tool. (This is different from the Rounded Rectangle Marquee tool in ImageReady.)
3. In the Options bar, set the Radius to **10** pixels.
4. Drag the pointer over the **image** to create a **rounded rectangle**.
5. Set the radius to **30** pixels.
6. Create another **rounded rectangle**. Note how the curvature of the corners in the second rectangle differs from the first.

Creating Polygons

You also can use the Shape tool to create **polygons**, which are shapes with many sides. You can use the Polygon option to create triangles, stars, octagons, and other shapes. You control the exact shape of the polygon by setting the following options:

- *Sides*: Set the number of sides. Five-point stars and pentagons both are considered to have five sides, although the star actually has 10.
- *Radius*: Set the distance from the center of a polygon to its outermost corners.
- *Snap to Pixels*: Force the shape around the gridwork of pixels. Paths normally ignore the pixels in an image and only snap to pixels when the path is converted to a selection.

- *Smooth Corners*: Round the points of the polygon.
- *Smooth Indents*: Round the interior corners of stars.
- *Indent Sides*: Draw the polygon as a star. The percentage value sets the size of each point; larger percentages create thinner, sharper points, while smaller percentages create thicker points.

Editing Shapes

Once you have created a shape, you can move or modify it. You can use the Move tool to move a selection and its contents, or use one of the Marquee tools to move just the selection. To move shapes, you can use the Path Component Selection tool in the toolbox, as shown in Figure 7-20. When the shape is a clipping path, the contents are moved with the path; when the shape is a work path, only the path itself is moved.

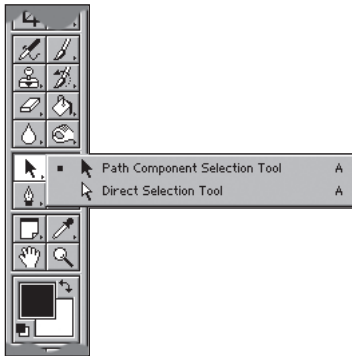


Figure 7-20 The Path Component Selection tool and Direct Selection tool

You use the Direct Selection tool to modify the positions of the anchor points that define the path and shape. With this tool, you can drag the anchor point to a new position. Normal anchor points are defined by their position, which indicate the vertex of the angle formed by two joined line segments, as shown in Figure 7-21.

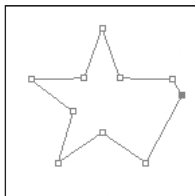


Figure 7-21 Anchor points in a vector path

The Pen tools also allow you to manipulate the anchors of a path. Using different variations, you can add and delete anchor points from a path to make it less or more smooth, and you can convert anchor points from curves to straight angles.

Combining Shapes

In Photoshop and ImageReady, you can combine selection areas and vector paths in different ways. Once you have created at least one shape, the Options bar displays buttons allowing you to add, subtract, intersect, or exclude overlapping areas. Figure 7-22 shows these buttons in the Options bar.



Figure 7-22 Controls for combining shapes

The buttons also determine how a new shape interacts with existing shapes. This is useful for creating complex shapes. Figure 7-23 shows the possible ways of combining shapes or selection areas; those ways are listed below:

- *Add*: Create a shape, or add one shape to another.
- *Subtract*: A new shape removes area from an existing shape.
- *Intersect*: The working area is the area overlapped by both shapes.
- *Exclude*: The working area is the area of the second shape not covered by the first shape.

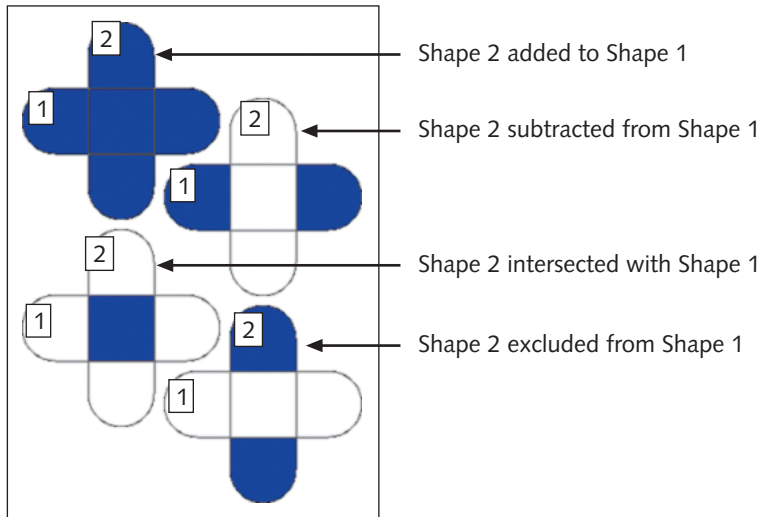


Figure 7-23 Possible ways to combine shapes

Creating Custom Shapes

Just as you can create custom brushes, which are essentially customized selection areas, you can create custom shapes. Use the Pen tool or any of the Shape tools to create a shape and edit it by adjusting the anchor points. When you finish, select the path, click Edit on the menu bar, and then click Define Custom Shape. Next, you set options for the new shape:

- *Defined Size*: The shape is always drawn with an exact width and height.
- *Defined Proportions*: The width and height of the shape can vary, but the aspect ratio remains the same.
- *Unconstrained*: The default setting; the shape is drawn without a set width and height.
- *From Center*: Force drawing the shape from the center. Otherwise, the default is to start drawing the shape from the upper-left.

You then can select custom shapes by clicking the Custom Shape icon in the Options bar or the tool palette. Click the inverted arrow next to the shape and choose a shape from the palette that appears.

Working with Shapes

Once you have defined a shape, you can convert it to a selection area and use the selection to create the rest of your image. You also can use the shape itself to color pixels in the image and add styles and effects. You can quickly switch between selections and shapes by clicking the icons at the bottom of the Paths palette. Be careful when you have a selection area and a path selected at the same time; if you move or delete one of them, Photoshop might move or delete the other.

The two easiest uses for shapes are to fill or stroke an area, as you would with a selection area. Filling a shape uses the foreground color to **fill** the path. When you **stroke** a shape, the path is outlined with a one-pixel line. Figure 7-24 shows the difference between these options.

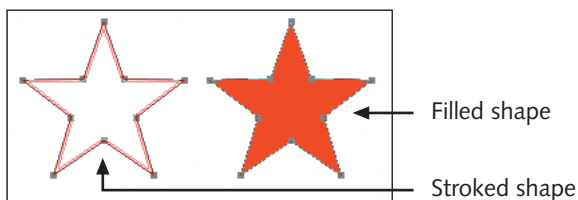


Figure 7-24 Using Fill and Stroke

CREATING 3-D EFFECTS

Because Web pages and graphics always appear on two-dimensional surfaces, you obviously cannot create true three-dimensional objects. You can easily create the illusion of 3-D, however, by using the principle that light almost always illuminates from above. Therefore, light consistently produces highlights on the upper surfaces of objects and creates shadows below them.

You can imitate this natural effect. Place highlights at the tops of objects in an image, and they appear to extend away from the rest of the page. Place shadows at the bottoms of objects in an image, and they appear to recede. You can reverse the illusion by inverting the shadows and highlights. If you turn this book upside down, the images in Figure 7-25 seem to reverse direction.

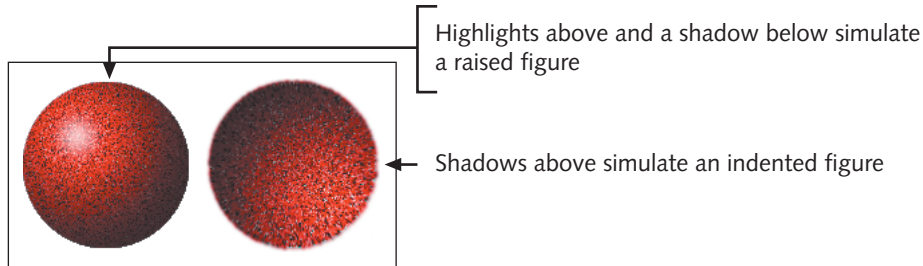


Figure 7-25 3-D effects

Using the Z-Axis

According to Cartesian coordinates, horizontal distances are measured along the x-axis, and vertical distances are measured along the y-axis. The height and width of images and their positions on Web pages often are measured in terms of x and y. This x-y coordinate system is the standard two-dimensional model used in all graphical interfaces.

Three-dimensional tools refer to another dimension that is perpendicular to the x- and y-axes. This third dimension is called the z-axis, and is used to measure the **virtual** distance between an image and the baseline surface of the rest of the field. In the left-handed coordinate system, a positive z value means the object is behind the screen, while a negative z value means the object is in front of the screen. In a right-handed system the reverse is true. Figure 7-26 shows the three main axes of the 3-D coordinate system.

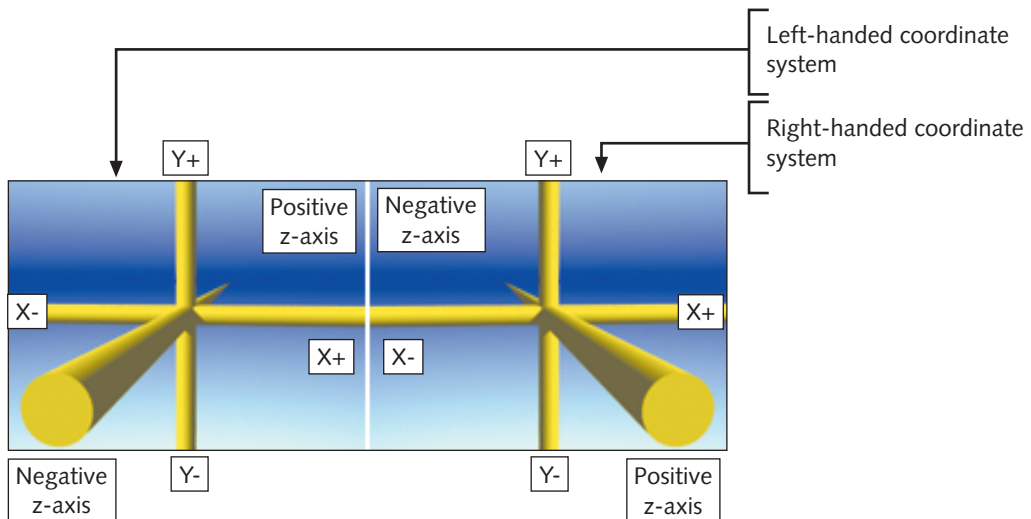
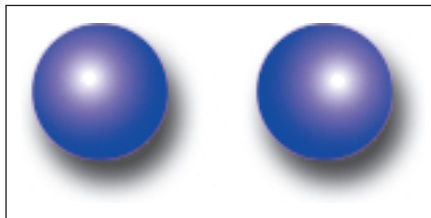


Figure 7-26 The 3-D coordinate system

Keeping the Light Consistent

Because light shines from above in the natural world, you see button highlights as pointing toward the virtual light source and shadows as pointing away. The highlights and shadows must be opposite each other to reinforce the illusion of light. When they do not match, as shown in Figure 7-27, the illusion is disturbed. Although the effect is probably not ruined altogether, mismatched shadows and highlights can distract the reader.

The convention is to use light not only from above, but also angled from the side. This technique adds more highlights and shadows on the sides of graphics, and increases the 3-D illusion. The angle can be from either side, but usually is from the upper-left, causing highlights on the upper-left side of the graphic and shadows on the lower-right.



Both highlight and shadow suggest a light source from the upper-left

The highlight suggests a light source from the upper-right, while the shadow suggests a light source from the upper-left

Figure 7-27 Matched and mismatched lighting effects

Using Beveled Edges

The most common 3-D effect is the **beveled edge**, which is a slanted or inclined edge. This effect is used on most icons and windows in graphical interfaces, and in standard desktop operating systems. To create the illusion of beveled edges, you add a highlight to the upper edge and left side of the image, and add a shadow to the lower edge and right side. See Figure 7-28 for examples. You can use any of the painting tools to create this effect, or you can use the Burn tool for the shadows and the Dodge tool for the highlights.

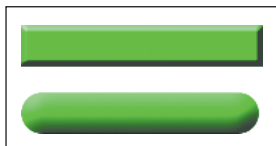


Figure 7-28 Hard and soft beveled edges

Using Gradients

Gradients are one of the more useful Web graphics effects, and they quickly add a professional polish. **Gradients** are smooth transitions from one color to another. The drawback of gradients is that they require a large color palette, which results in larger files.

In Photoshop, the gradient tools include the Linear Gradient tool, the Radial Gradient tool, the Angle Gradient tool, the Reflected Gradient tool, and the Diamond Gradient tool. Figure 7-29 illustrates these gradients, using white as the foreground color and black as the background color.

Each tool works in a similar way, creating a graduated color shift between two or more colors. The difference between the tools is in the shapes they create.

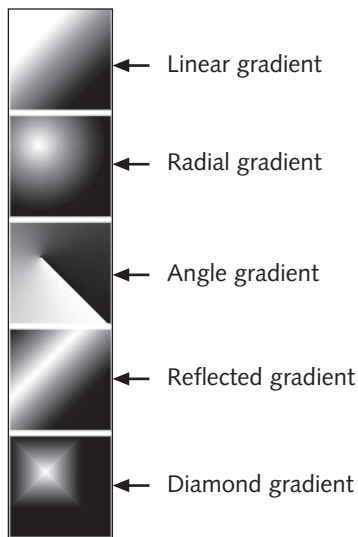


Figure 7-29 Five types of gradients

- *The Linear Gradient tool:* This tool creates a simple transition from one color to another in one direction.
- *The Radial Gradient tool:* This tool creates a point of one color that radiates in all directions as it shifts to other colors.
- *The Angle Gradient tool:* This tool creates a circular gradation from one color to another around a central point.
- *The Reflected Gradient tool:* This tool creates a linear gradation from one color to another, then back to the first color.
- *The Diamond Gradient tool:* This tool is similar to the Radial Gradient tool, but creates diamond shapes as it shifts from one color to another.

The gradient tools replace all selected pixels with the gradient, so make your selection carefully, or use the gradient tools in an empty layer. The tools share the same options in the Options palette. In addition to Mode and Opacity, you can control which colors are used in the gradation. The default selection of Foreground to Background causes the gradient to use the foreground and background colors as end points. The Foreground to Transparent gradient fades from the foreground color to completely transparent, which is useful for adding subtle shading to images. Photoshop includes several other preset gradients and allows you to create your own.

Using a Drop Shadow

A **drop shadow** creates the illusion that a button is hovering above the rest of the page. Notice in Figure 7-30 how a stronger drop shadow causes the boxes to seem to be lifted off the page.



Figure 7-30 Drop Shadows

Drop shadows are more convincing when they fade into the background, but faded edges make it more difficult to use transparent backgrounds. When using drop shadows, make sure to use the same background color for the button and the page. When used within a button, drop shadows create the illusion that the selection is carved out of the rest of the button.

You can create a drop shadow by painting with a dark color around the button. Another option is to copy the button to a new layer.

To create a drop shadow by copying a layer:

1. Duplicate the layer containing the button image.
2. Move the lower layer **five** to **10** pixels down and to the side.
3. Darken and blur the colors of the lower layer to simulate shading.

Photoshop and ImageReady automate this technique with the Drop Shadow effect, which is one of several automated layer styles.

To use styles to create a drop shadow effect:

1. Select the **layer** containing the button image.
2. Click the **Add a layer style** button at the bottom of the Layers palette and then click **Drop Shadow**. You also can click **Layer** on the menu bar, point to **Layer Style**, and then click **Drop Shadow**.
3. In the Layer Style dialog box, shown in Figure 7-31, adjust the various options or use the defaults.
4. Click **OK**. You should see a style icon in the affected layer. Any edits you make to this layer will adopt the same style.

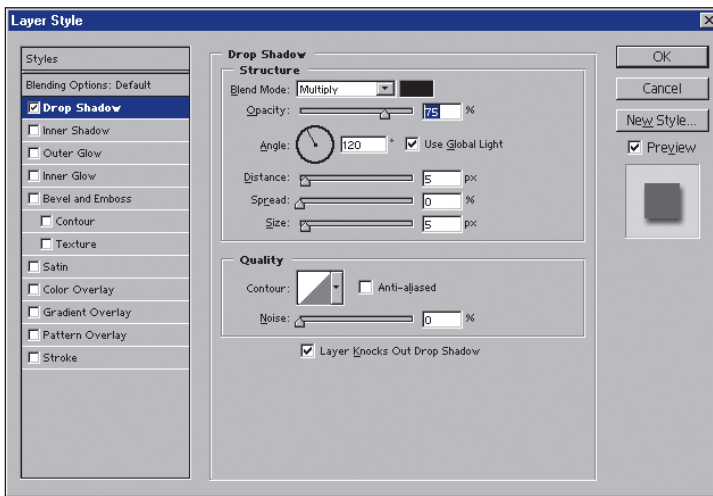


Figure 7-31 The Layer Style dialog box

The Drop Shadow effect offers several parameters to adjust the darkness and softness of the shadow, but the default settings are generally best. A similar effect is the Outer Glow, which uses a light color as a shadow. This effect is useful for buttons that appear over dark backgrounds.

Using Layer Styles

Layer Styles allow you to add several effects to any layer in your image. Unlike other filters, the effects are applied to the entire layer rather than to the selected area. You can use multiple effects at the same time, and you can turn the effects on and off as long as the layer is separate. The effects are permanently set when you flatten the layers; Photoshop finds the transparent areas in the layer and applies the effects to the edge

between transparent and opaque areas. You can see the effects of using Layer Styles in Figure 7-32.

The effects that help you create 3-D buttons are the Drop Shadow, Inner Shadow, Inner and Outer Glow, and Bevel and Emboss. For each effect, you can adjust the Mode, the Opacity, the angle of the simulated light source, the distance along the z-axis, the blur, and the intensity.

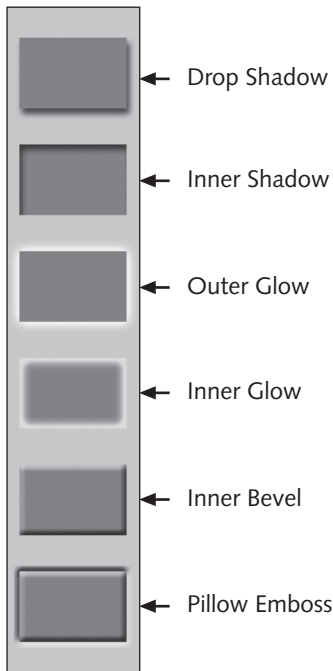


Figure 7-32 Using Layer Styles

All layer effects use the **global angle**, which is a standard angle for simulated light. When you set the global angle, all effects use the same angle. In Photoshop, angles are measured counterclockwise starting from the rightmost point on a circle (3:00 on a clock face). The standard global angle is from the upper-left at 120 degrees. Using a different angle can cause reverse shading and highlighting. In particular, an angle of 120 degrees with the Inner Shadow effect causes the image area to appear to recede, while an angle of -50 degrees causes the styled (or affected) area to pop out of the image.

Using 3-D Software

Until the mid-1990s, creating quality 3-D graphics required expensive software on high-end computers such as Silicon Graphics workstations. Now many 3-D software packages are available for desktop computers. These programs tend to be more difficult to learn

than other graphics software, and understanding them in depth requires an entire course or sequence of courses. These tools are more appropriate for video and animation projects, and provide an abundance of features to produce images for the Web. You can use basic Photoshop tools to produce all the 3-D effects you need for most Web graphics.

Using Distort Filters in Photoshop

Photoshop and most other image editors include various distortion filters that create 3-D effects by making images appear to move in and out of the z-axis. Most of these filters are not appropriate for creating buttons, but they still are useful for creating 3-D effects in other graphics. The Pinch filter pulls a point out of the image and pushes it in or pulls it out along the z-axis. The Spherize filter is similar, but creates a more rounded effect. The ZigZag filter is like the Spherize filter but creates ripples like those in water. You can see examples of these effects in Figure 7-33.

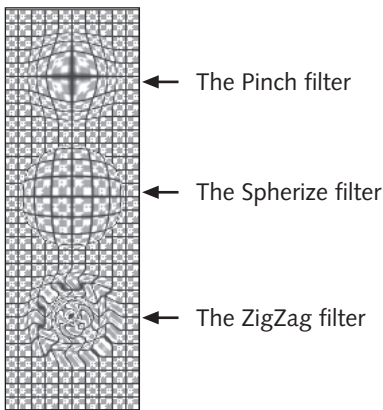


Figure 7-33 Three distort filters

IMPLEMENTING BUTTONS IN WEB PAGES

Just as buttons can be divided into several thematic categories, you also can divide them into four functional categories: simple links, form submission buttons, those that control media within a page, and those that open or close windows. While the thematic categories affect the design of the buttons, the functional categories affect how you place the buttons in Web pages.

Using a Graphic for a Link

Buttons themselves contain nothing that links to something else. The link is coded in the anchor tag that surrounds the button. For example, the following code creates a text link to a page called next.html, using the word continue as the link:

```
<a href="next.html">continue</a>
```

The following code, however, creates a button that links to next.html. Note that the anchor tag is identical in both examples, but the example below uses an image instead of the word continue:

```
<a href="next.html"></a>
```

The only modification you need to make to the IMG tag is in the BORDER attribute. By default, when an image is enclosed in an anchor tag, the browser displays the image with a border of the same color as the link color, usually blue. Notice in Figure 7-34 that the graphic appears with a blue line around it. Although the border is an effective cue that the image is a link, most designers choose to remove it. To remove the border, add the BORDER attribute to the IMG tag and set its value to 0:

```
<a href="next.html"></a>
```

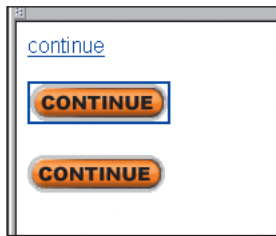


Figure 7-34 Text and button links

Using a Tabbed Interface

Tabs are usually implemented in a tabbed interface by the producer rather than the designer, but you are expected to slice the image into its component parts. A design example for a tabbed interface is shown in Figure 7-35. Each of the three rows must appear at the top of a different page. To make each tab have a different link, you could use an image map, which we cover in the “Creating Splash Screens” chapter, or chop the tabs into separate buttons.

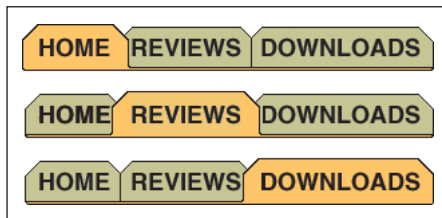


Figure 7-35 A design for a tabbed interface

Slicing tabs for a navigation bar can be more difficult than it seems. If the tabs you designed overlap at all, you cannot slice the graphics between the tabs. If you try, the tabs will be mismatched. One solution is to design three or even four versions of each tab, and have each tab contain a bit of the neighboring tabs. Figure 7-36 shows the four versions of the Reviews button that would be necessary to avoid mismatched tabs.



Figure 7-36 Multiple versions of a tab button

You also can create just two versions of each tab, and create spacers to be placed between each tab. Figure 7-37 shows the two necessary versions for each tab, as well as the spacer images that go between the tabs.

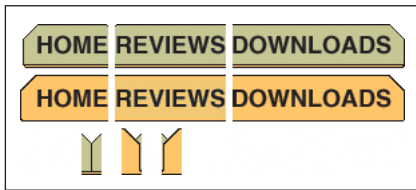


Figure 7-37 Two versions of each tab with spacers

When you place these graphics in a table, make sure that the TABLE tag has its sizing attributes set to 0. The following HTML code produces the layout in Figure 7-38:

```
<table>
<tr>
<td>

</td>
<td>

</td>
<td>

</td>
<td>

```

```

</td>
<td>

</td>
</tr>
</table>

```



Figure 7-38 Tabbed interface with default table attributes

You must set the `CELLSPACING`, `CELLPADDING`, and `BORDER` attributes to 0. Additionally, you must remove all white space between the `IMG` tags and the surrounding `TD` tags. Many WYSIWYG HTML editors miss this step, so you may have to edit the white space by hand.

The following HTML produces the layout in Figure 7-39:

```

<table cellpadding="0" cellspacing="0" border="0"><tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr></table>

```



Figure 7-39 Tabbed interface with flush table cells

Using a Graphic for the Submit Button

All forms require a Submit button. Whether it is a simple log-on box or a complex survey, you must include a button that allows users to send the form data to a server. The default Submit button is gray, beveled, has rounded corners, and contains a word (usually Submit). You can use HTML to specify which word appears in this button, but you cannot control the shape, size, or color.

The following HTML code creates the form in Figure 7-40:

```

<form method="post" action="/cgi-bin/join.cgi">
<input type="text" name="E-mail_Address" value="my@e-mail"
size="10">
<br><br>
<input type="submit" value="Join Now!">
</form>

```

The INPUT tag is used to define most form elements. When you set the TYPE attribute to “submit,” the browser displays a standard gray button. This button displays Submit or Submit Query unless you set the VALUE attribute to display specific text.

A screenshot of a web form. It consists of a text input field with the placeholder text 'my@email' and a gray submit button with the text 'Join Now!'.

Figure 7-40 A basic form with default submit button

You can replace these gray Submit buttons with graphics that you create. This procedure does not require using style sheets and is supported by all modern browsers. To use a graphic as a Form Submit button, use an INPUT tag, but set the TYPE to “image” instead of “submit.” The browser will replace the standard gray button with an image.

You must indicate which button to use with the SRC attribute, and just as with a normal IMG tag, you should set the HEIGHT and WIDTH attributes, and the BORDER attribute to 0.

The following HTML code creates the form in Figure 7-41:

```
<form method="post" action="/cgi-bin/join.cgi">  
<input type="text" name="E-mail_Address" value="my@e-mail"  
size="10">  
<br><br>  
<input type="image" src="join.gif" width="100" height="19"  
border="0">  
</form>
```

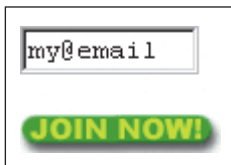
A screenshot of a web form, similar to Figure 7-40 but with a graphical submit button. The text input field contains 'my@email'. The submit button is a green, 3D-style button with the text 'JOIN NOW!' in yellow.

Figure 7-41 A basic form with graphical submit button

Using Buttons for Other Functions

You can use buttons to control audio and video players in Web pages, as well as open and close windows. The functionality of these buttons comes from client-side scripting such as JavaScript, not from the buttons themselves.

Regardless of its purpose, a button is displayed using an IMG tag, as you have seen in previous examples. The surrounding anchor tag contains the extra coding.

CHAPTER SUMMARY

- You can create several types of buttons, but you should design buttons of the same type within individual pages so that they look similar.
- Buttons must indicate that clicking them causes the browser to perform an action. The best way to achieve this effect is to make the buttons resemble physical, three-dimensional buttons.
- Links that need emphasis attract more attention if you represent them as buttons. Links that do not need emphasis should remain as text.
- Using text in an image editor is similar to using text in a word processor.
- Usually you create buttons as circles or rectangles with rounded corners. To do so in Photoshop, you use a variety of Shape tools.
- Shapes are made of paths and can be converted to or from selection areas.
- You create 3-D effects by simulating a light source above the button. Make the button appear to have highlights at the top and shadows below it.
- You can simulate light and shadow by beveling edges, using gradients, and by adding drop shadows.
- To make a button clickable, wrap the IMG tag with an anchor tag.
- Form submissions use a gray button by default. You can set a form to use your own graphics as submit buttons.

REVIEW QUESTIONS

1. What two types of links can you best represent as buttons?
 - a. Site information
 - b. Account information
 - c. Media player
 - d. Directional
2. Which pair of buttons should share a similar design?
 - a. Contact Us and Mail This Page to a Friend
 - b. Log In and Log Out
 - c. Home and News
 - d. Help and Next Page

3. Which of the following is not a cue to tell the reader that a button is clickable?
 - a. 3-D effects
 - b. Rollover effects
 - c. Bright colors
 - d. Rounded corners
4. Which links can you represent as buttons?
 - a. Media player and site content links
 - b. Navigation links
 - c. Any link other than links within blocks of text
 - d. You can use buttons for any link.
5. How would you create text that reads down instead of across?
 - a. Use the Warp Text option.
 - b. Rotate the layer 90 degrees.
 - c. Use the vertical orientation option.
 - d. You cannot do this in Photoshop.
6. Which of the following are standard for text used in buttons?
 - a. Italic, bold, uppercase, Arial
 - b. Nonitalic, nonbold, lowercase, Times
 - c. Italic, nonbold, uppercase, Times
 - d. Nonitalic, bold, lowercase, Arial
7. Which of the following is not a reason to use text links instead of buttons?
 - a. Saving bandwidth
 - b. De-emphasizing links
 - c. Keeping the page uncluttered
 - d. You are not sure if readers have the proper fonts installed to display the buttons correctly.
8. When do you have to rasterize text?
 - a. When using the Type Mask tool
 - b. When you want to edit a text layer
 - c. When you want to use filters
 - d. When you want to apply layer styles

9. What is the difference between the Rectangular Marquee tool and the Rectangle tool?
 - a. The Rectangular Marquee tool creates vectors, and the Rectangle tool creates paths.
 - b. The Rectangular Marquee tool creates selection areas, and the Rectangle tool creates shapes.
 - c. The Rectangular Marquee tool creates shapes, and the Rectangle tool creates vectors.
 - d. There is no difference between the two.
10. Which of the following formats can save path information?
 - a. PSD only
 - b. PSD, TIF, and PS
 - c. Any image format
 - d. Most image formats, including GIF and JPG
11. Which of the following tools quickly makes rectangles with rounded corners?
 - a. Rectangular Marquee tool
 - b. Elliptical Marquee tool
 - c. Ellipse tool
 - d. Rounded Rectangle tool
12. How would you create a triangle with rounded corners?
 - a. Use the Rounded Rectangle tool, set the number of sides to 3, and select Smooth Indents.
 - b. Use the Polygon tool, set the number of sides to 3, and select Smooth Corners.
 - c. Use the Polygon tool, set the number of sides to 3, and select Smooth Indents.
 - d. Use the Ellipse tool, set the number of sides to 3, and select Indent Sides.
13. Which gradient tool creates a spot of one color that fades to another color in circles around the initial point?
 - a. Linear Gradient tool
 - b. Radial Gradient tool
 - c. Angle Gradient tool
 - d. Reflected Gradient tool
14. What is the direction of a conventional light source?
 - a. From the side
 - b. From the upper-left
 - c. From directly above
 - d. From the upper-right

15. What is the z-axis?
 - a. The width of a vector path
 - b. The line around which 3-D objects are rotated
 - c. The diagonal line between the x-axis and y-axis
 - d. An imaginary line coming out of the screen
16. Which of the following tools can create a highlight that fades to a shadow?
 - a. Burn tool
 - b. Paint Can tool
 - c. Gradient tool
 - d. Dodge tool
17. How do you make a button link to another page?
 - a. Add an SRC attribute to the IMG tag.
 - b. Enclose the IMG tag with an anchor tag.
 - c. It happens automatically.
 - d. Place the button on both pages.
18. How do you make a button open a new window?
 - a. The button itself is no different; just change the anchor tag.
 - b. The shape's path needs to include JavaScript.
 - c. You must create the button with a WYSIWYG HTML editor.
 - d. Place the button on both pages to indicate to the browser which pages are linked.
19. What sort of menu usually requires client-side scripting?
 - a. Tabbed interface
 - b. Hierarchical menu
 - c. Side navigation
 - d. Top navigation
20. Which browsers support the use of graphics as form-submission buttons?
 - a. Internet Explorer version 5 and later
 - b. Internet Explorer version 4 and later
 - c. Netscape Navigator and Internet Explorer, versions 4 and later
 - d. All modern browsers

HANDS-ON PROJECTS



Project 1: Create a 3-D E-Mail Button

You have an e-mail link at the bottom of your Web page and you want to replace the text link with a stylized symbol.

Complete these steps:

1. Create an **image** that is **50** pixels wide and **50** pixels high.
2. Select the **Type** tool.
3. Set the Font to **Arial** and **Bold**. Set the font size to **36** points.
4. Click in the middle of the image and type the **@** symbol.
5. Center the character with the Move tool.
6. Click **Layer** on the menu bar, point to **Layer Style**, and then click **Drop Shadow**.
7. In the Effects dialog box, Set the Blend mode to **Multiply**, the opacity to **75%**, and the Angle to **12°**. Set the Distance to **5** pixels, the Spread to **10%**, and the Size to **5**. Use the default settings for the other options.
8. Select **Bevel and Emboss** from the menu in the Layer Style dialog box.
9. Set both Opacity values to **100%**, the Style to **Inner Bevel**, the Depth to **200%** pixels, the Size to **5** pixels, and the Soften to **3** pixels. Click **OK**.
10. Flatten all the layers.
11. Select the **Levels** tool, and use it to set the Gamma to **1.5** (the center Input Levels text box). Click **OK**.
12. With the **Hue/Saturation** tool, select **Colorize**, set the Hue to **240**, and then click **OK**.
13. Optimize the image and save it as **e-mail.gif** in a new folder named **project_7-1**.



Project 2: Create a Faded Next Button

You have complete navigational controls at the top of your Web page. The controls allow users to navigate between pages in a multipage article. You want to add a subtle reinforcing link at the bottom.

Complete these steps:

1. Create an **image** that is **200** pixels wide and **100** pixels high.
2. Create a second **layer**, and fill it with white.
3. Select the **Type** tool and click the **Create a mask or selection** button in the Options bar. Set the Font to **Arial, Bold** and **30** points.
4. Type **Next->** in the new layer. Commit the text by clicking the **Commit any current edits** (check mark) button in the Options bar or by selecting another tool from the toolbox.

5. Center the selection.
6. Click **Select** on the menu bar, and then click **Inverse**.
7. Select the **Airbrush** tool and select a **soft round brush** with a diameter around **65** pixels. Set the Pressure to **25%**. Set the foreground color to **black**. Use the normal mode.
8. Drag the pointer over the **text** to create a **gray outline** around the text.
9. Click **Layer** on the menu bar, point to **Layer Style**, and then click **Drop Shadow**. Adjust the settings or use the default settings. The text should appear to be cut out of the image.
10. Flatten the layers and trim the image.
11. Optimize the image and save it as **next.gif** in a new folder named **project_7-2**.



Project 3: Create a Beveled Next Button

You do not have to use advanced features of Photoshop or ImageReady to create 3-D effects. You can create highlights and shading with basic tools found in any graphics program.

Complete these steps:

1. Create an **image** that is **60** pixels wide and **40** pixels high.
2. Select the **Line** tool. In the options bar, select the Create filled region button, and set the Weight to **20** pixels. Deselect **Anti-aliased** if it is selected.
3. In the Geometry options list, insert a **check mark** in the End check box for arrowheads. Set the Width and Length to **150%**, and set the Concavity to **0%**.
4. Set the foreground color to a **medium green** (**#00cc00**) and draw an **arrow** from left to right across the image. Hold down the **Shift** key to keep the line horizontal.
5. Select the **Pencil** tool and use a brush that is **2** pixels in diameter.
6. Set the foreground color to a **lighter green** (**#99ff99**) and zoom in on the image.
7. Draw **straight lines** along the upper and left inner edges of the arrow.
8. Set the foreground color to a **darker green** (**#006600**) and draw **straight lines** along the lower and right inner edges of the arrow.
9. Blur the image with the Gaussian Blur filter, using a Radius of **0.7**.
10. Optimize the image and save it as **next2.gif** in a new folder named **project_7-3**.



Project 4: Create Two Buttons for a Web Jukebox

You have a JavaScript-based audio player and need buttons to use in the interface. You will start with just the Play and Stop buttons as prototypes and create the other buttons later. You want the buttons to resemble the buttons on CD players as much as possible.

Complete these steps:

1. Create an **image** that is **60** pixels wide and **40** pixels high.
2. Select the **Gradient** tool. In the options, choose **Reflected Gradient**. Set the Gradient to **Foreground to Background**.
3. Set the background color to **black** and the foreground color to a **grayish-blue** (**#666699**).
4. Move the pointer to the **center** of the image, hold down the **Shift** key, and drag the pointer to the **bottom** of the image.
5. Create a second **layer**.
6. Set the foreground color to **red** (**#ff0000**)
7. Select the **Rectangle** tool. In the Options bar, click **Create filled region**.
8. Create a **15 × 15** pixel **square centered** in the left half of the new layer.
9. Set the foreground color to **green** (**#00cc00**)
10. Select the **Polygon** tool. In the Options bar, set the Sides to **3**, click the **Geometry** options arrow, and set the Radius to **10**. If Anti-Aliased is selected, deselect it.
11. Create a **triangle** pointing toward the right and centered in the right half of the new layer.
12. Click **Layer** on the menu bar, point to **Layer Style**, and then click **Inner Shadow**. In the dialog box that appears, set the Distance to **7** pixels and the Choke to **0%**. Click **OK**.
13. Flatten the image and save it as **buttons.psd** in a new folder named **project_7-4**.
14. Select the **Canvas** tool and use it to crop the Stop button (square) at **30** pixels wide.
15. Optimize the image and save it as **stop.gif**.
16. Open **buttons.psd** again and crop the Play button (triangle) at **30** pixels wide.
17. Optimize the image and save it as **play.gif**.



Project 5: Create a Cartoon Button

You are creating buttons for your top navigation bar to link to the content areas of your site. You want a cartoon look for the buttons.

Complete these steps:

1. Create an **image** that is **60** pixels wide and **60** pixels high.

2. Select the **Rounded Rectangle** tool. In the Options bar, click **Create new shape layer**. Set the Radius to **10**. On the Style menu, click the style named **Color Target (Button)**. Open the Rounded Rectangle Options menu and select **Unconstrained**.
3. Drag the pointer over the **image** to create the button.
4. In the Layers palette, expand the **shape layer** and double-click the **style** icon next to the words Drop Shadow to open the Layer Style dialog box. In the dialog box, change the distance to **10** pixels.
5. Select the **Direct Selection** tool. Select each **corner anchor tab** to change the shape of the button.
6. Flatten the image. Use the Levels dialog box to raise the black output level to **75**.
7. Using **black**, type **Games!** in the image.
8. Click the **Warp Text** button in the Options bar to open the Warp Text dialog box. Set the style to **Inflate**. Set the Bend to **75%**.
9. Flatten the image, **optimize**, and save it as **games.jpg** in a new folder named **project_7-5**.



Project 6: Create a Button with Emphasized Text

Create a button in which the text appears to be lifted away from the textured background.

Complete these steps:

1. Create an **image** that is **120** pixels wide and **60** pixels high.
2. Set the background color to **blue** and the foreground color to **white**.
3. Run the **Clouds** filter.
4. Select the **Levels** tool and set the black Output Level to **127**.
5. Select the **Type** tool and add a **type mask** of the word **Reviews** in a **bold, 24-point, Verdana** font.
6. Click **Select** on the menu bar, and then click **Inverse**.
7. Normalize the contrast within the selected area.
8. Select the **Burn** tool and darken the area around the text.
9. Click **Select** on the menu bar, and then click **Inverse**.
10. Normalize the contrast within the type mask. Copy the **selection** and paste it in a new layer.
11. Add the **Outer Glow** style with the Layer Style dialog box. From the Contour menu, select the contour named **Ring**.
12. Flatten the image, normalize contrast, optimize, and save it as **reviews.jpg** in a new folder named **project_7-6**.



Project 7: Create a Vertical Button

Create a button that looks as though it is standing vertically on the page.

Complete these steps:

1. Create an **image** that is **120** pixels wide and **50** pixels high with a **transparent** background.
2. Select the **Type** tool and use it to add **Gallery** as a type mask in a new layer. Select a **bold sans serif font**, and select a size that fits within the shape.
3. Fill the text with the foreground color, blue (#0033CC).
4. Duplicate the **layer**. Select the **bottom layer**.
5. Click **Edit** on the menu bar, point to **Transform**, then click **Skew**. Reduce the height to about **80%**, move the selection down so that the bottom edge of the selection is aligned with the bottom edge of the text in the other layer. Skew the selection horizontally by about **[-30]** degrees.
6. Click **Image** on the menu bar, point to **Adjust**, and then click **Invert**.
7. Set the foreground color to **black**. Select the **Gradient** tool. In the Options bar set the gradient to **linear**, from **Foreground to Transparent**. Create a gradient from bottom to top of the selection. Make sure that transparency is locked.
8. Raise the Gamma to **2**.
9. Flatten the image, optimize, and save it as **gallery.gif** in a new folder named **project_7-7**.



Project 8: Create Another Standard Button

Create a standard button to use in a navigation bar.

Complete these steps:

1. Create an **image** that is **120** pixels wide and **35** pixels high with a **transparent** background.
2. Select the **Rounded Rectangle** tool. Set the **Radius** to **10**. Set the layer style to **none**.
3. Create a **white-filled region** **100** pixels wide and **20** pixels high.
4. Add every possible layer style except Texture and Stroke. Use default settings or experiment with the various features.
5. Save the image as **button.psd** in a new folder named **project_7-8**.
6. Use this image as a basis for several navigation buttons. Use text of a complimentary color over the button to create buttons with the words: **Store**, **Reference**, and **Help**.

7. Adjust the color of the base button so that the hue is slightly different and the saturation is reduced. Use text of a complimentary color to create buttons with the words: **Books**, **Music**, **Glossary**, **FAQ**, **Phone #s**, and **Guide**.
8. Optimize and save all of these images in the **project_7-8** folder.

CASE PROJECT



Create a navigation bar for your site. This bar should be a vertical column of at least 10 buttons. Four or five of the buttons are category headings that contain subcategories. The category buttons should be distinct from the subcategory buttons. Create 3-D buttons for each link on the bar.

Create navigation buttons for your site that communicate their purpose without using words. The buttons should convey the concepts of Back, Next, and Home, among others. The buttons also should share a common design.